JUN 0 1 2004 W

**TRANSMITTAL** 

PTO/SB/21 (08-03) Approved for use through 08/30/2003. OMB 0651-0031

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09/481,351

**Application Number** 

| FORM   |  | Filing Date                 | January   | 12, 2000                                   |  |  |  |
|--|--|-----------------------------|---|--|--|--|--|
| (to be used for all correspondence after initial filing)   |  | First Named Inventor        | David R.  | Payne                                      |  |  |  |
|  |  | Art Unit                    | 3671  |  |  |  |  |
|  |  | Examiner Name               | Raymon  | d Addie                                    |  |  |  |
| Total Number of Pages in This Submission 15  |  | Attorney Docket Number      | 082380-0  | 00339                                      |  |  |  |
|  |  |                             | 101 0011050   |  |  |  |  |
|  |  | FL                          | ICLOSURES (Check all tha  | t apply)                                   |  |  |  |
| Fee Tra  | nsmittal Form                                | 🗆 .                         | Orawing(s)  |  | After Allowance Communication To a Technological Center (TC)   |  |  |
| ☐ Fe   | e Attached                                   | <b>П</b> .                  | icensing-related Papers   |  | Appeal Communication to Board of Appeals and Interferences     |  |  |
| Amenda   | ment/Reply                                   | □ ₽                         | Petition  |  | Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) |  |  |
| After Final  Affidavits/declaration(s)  Extension of Time Request  Express Abandonment Request   |  |                             | Petition to Convert a Provisional Application  Power of Attorney, Revocation Change of Correspondence Address |  | Proprietary Information  |  |  |
|  |  |                             |   |  | Status Letter  |  |  |
|  |  |                             | Terminal Disclaimer   | Other Enclosure(s) (please Identify below) |  |  |  |
|  |  |                             | Request for Refund  |  | Pre-addressed postcard   |  |  |
| Information Disclosure Statement   |  |                             | CD, Number of CD(s)   |  |  |  |  |
| Certified Copy of Priority Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 |  | Remar                       | ks  |  | RECEIVED   |  |  |
|  |  |                             |   |  | JUN 0 8 2004   |  |  |
|  |  |                             |   |  |  |  |  |
|  |  |                             |   |  | GROUP 3600   |  |  |
| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT   |  |                             |   |  |  |  |  |
| Firm<br>or   | Sean V. O'Connell, E<br>McKinney & Stringer, |                             |   |  |  |  |  |
| Individual   | 101 North Robinson, Suite 1300               |                             |   |  |  |  |  |
|  | Oklahema City, Oklah                         | aoma T                      | 73102   |  |  |  |  |
| Signature  | l Seh -                                      | $\mathcal{O}_{\mathcal{C}}$ |   |  |  |  |  |

## CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this date: May 24, 2004

| Typed or printed | Sean V. O'Connell, Esquire |      |              |
|------------------|----------------------------|------|--------------|
| Signature        | Celly                      | Date | May 24, 2004 |
|                  |                            |      |              |

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, VA 22313-1450.

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May 24, 2004

Date

**FEE TRANSMITTAL** for FY 2004

Effective 01/01/2003. Patent fees are subject to annual revision

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 420.00

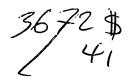
| Con                  | Complete if Known |  |  |  |
|----------------------|-------------------|--|--|--|
| Application Number   | 09/481,351        |  |  |  |
| Filing Date          | January 12, 2000  |  |  |  |
| First Named Inventor | David R. Payne    |  |  |  |
| Examiner Name        | Raymond Addie     |  |  |  |
| Art Unit             | 3671              |  |  |  |
| Attorney Docket No.  | 082380-00339      |  |  |  |

| METHOD OF PAYMENT (check all that apply)                               |   |              | FEE CALCULATION (continued) |                |           |  |  |
|--|---|--------------|-----------------------------|----------------|-----------|--|--|
| ☐ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None                     |   |              | TIONA                       | L FEES         |           |  |  |
| Deposit Amount:  |   |              | 1                           |                |           |  |  |
| Deposit  |   | Large        | Fee                         | Small I<br>Fee | Fee       |  |  |
| Account<br>Number  | 13-2493   | Fee<br>Code  | (\$)                        | Code           | (\$)      | Fee Description Fee Paid   |  |
| Denosit  |   | 1051         | 130                         | 2051           | 65        | Surcharge – late filing fee or oath  |  |
| Account<br>Number McKinney & Stringer, P.C.                            |   |              | 50                          | 2052           | 25        | Surcharge – late provisional filing fee or cover charge                    |  |
| The Commissioner is authorized to: (check all that apply)              |   |              | 130                         | 1053           | 130       | Non-English specification  |  |
| ⊠ Charge fee(s) indicated below  |   |              | 2,520                       | 1812           | 2,250     | For filing a request for ex parte  |  |
| ☑ Charge any additional fee(s) during the pendency of this application |   |              | 920*                        | 1804           | 920*      | reexamination  Requesting publication of SIR prior to                      |  |
| Charge fee(s) indicated below, except for the filing fee to the above- |   |              |                             | 1004           | 320       | Examiner Action  |  |
| identified deposit account.  FEE CALCULATION                           |   |              | 1,840*                      | 1805           | 1,840*    | Requesting publication of SIR after Examiner action                        |  |
| A DASIC EILING   |   | 1251         | 110                         | 2251           | 55        | Extension for reply within first month                                     |  |
| 1. BASIC FILING  Large Entity S  | mall Entity   | 1252         | 420                         | 2252           | 210       | Extension for reply within second 420.00 month                             |  |
| Fee Fee (\$) Fe  |   | 1253         | 950                         | 2253           | 475       | Extension for reply within third month                                     |  |
| 1001 770 200   | ·   | 1254         | 1,480                       | 2254           | 740       | Extension for reply within fourth month                                    |  |
|  | , ,   | 1255         | 2,010                       | 2255           | 1,005     | Extension for reply within fifth month                                     |  |
|  |   | 1401         | 330                         | 2401           | 165       | Notice of Appeal   |  |
| 1003 530 200   | 03 265 Plant filing fee   | 1402         | 330                         | 2402           | 165       | Filing a brief in support of an appeal                                     |  |
| 1004 770 200   | 04 385 Reissue filing fee   | 1403         | 290                         | 2403           | 145       | Request for Oral Hearing   |  |
| 1005 160 200   | 05 80 Provisional filing fee  | 1451         | 1,510                       | 1451           | 1,510     | Petition to institute a public use proceeding                              |  |
|  | SUBTOTAL (1) (\$)   | 1452         | 110                         | 2452           | 55        | Petition to revive – unavoidable   |  |
| A EVEDACIAIN   | · · · · · · · · · · · · · · · · · ·                                   | 1453         | 1,330                       | 2453           | 665       | Petition to revive – unintentional   |  |
| 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE                            |   | 1501         | 1,330                       | 2501           | 665       | Utility issue fee (or reissue)   |  |
|  | Extra Fee from Fee<br>Claims below Paid                               | 1502         | 480                         | 2502           | 240       | Design issue fee   |  |
| Total Claims   | -20** = X 18.00 =   | 1503         | 640                         | 2503           | 320       | Plant issue fee  |  |
| Total Claims   |   | 1460<br>1807 | 130<br>50                   | 1460<br>1807   | 130<br>50 | Processing fee under 37 CFR 1.17(q)  |  |
| Independent Claims   | -3** = X 86.00 =  | 1806         | 180                         | 1806           | 180       | Processing fee under 37 CFR 1.17(q) Submissions of Information Disclosure  |  |
| Multiple Dependent   | -20** = X = =   | 1000         | 100                         | 7000           | 100       | Stmt   |  |
| l ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '                                | Small Entity  | 8021         | 40                          | 8021           | 40        | Recording each patent assignment per property (times number of properties) |  |
| Fee Fee (\$) Fe<br>Code Cod  |   | 1809         | 770                         | 2809           | 385       | Filing a submission after final rejection (37 CFR 1.129(a))                |  |
| 1 1  | 202 9 Claims in excess of 20 201 43 Independent claims in excess of 3 | 1810         | 770                         | 2810           | 385       | For each additional invention to be examined (37 CFR 1.129(b))             |  |
| 1203 290 2   | 203 145 Multiple dependent claim, if not paid                         | 1801         | 770                         | 2801           | 385       | Request for Continued Examination (RCE)                                    |  |
| 1204 86 22   | 204 43 *** Reissue independent claims over original patent            | 1802         | 900                         | 1802           | 900       | Request for expedited examination of                                       |  |
|  | 205 9 ** Reissue claims in excess of 20 and over                      |              | I                           |                |           | a design application   |  |
| Other fee (specify)  |   |              |                             |                |           |  |  |
| SUBTOTAL (2) (\$)  |   |              |                             |                |           |  |  |
| **or number previously paid, if greater, For Reissues, see above       |   |              | ced by E                    | Basic Filin    | g Fee     | SUBTOTAL (3) (\$) 420.00   |  |
| SUBMITTED BY   |   |              |                             |                |           | Complete (if applicable)   |  |
| Name (Print/Type) Sean V. O'Connell                                    |   |              | ation No<br>ey/Agent        |                | 2,951     | Telephone: 405-239-6444  |  |
| Signature Date May 24, 2004  |   |              |                             |                |           |  |  |

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### □ DESIGN ⊠ UTILITY PATENT

Att'y Dkt. No.:

Group Art Unit:

Examiner:

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: David R. Payne, Gerald A. Stangl,

Norman E. Stevens, Jr., and Michael F. Gard

Serial No.:

09/481,351

Filed:

January 12, 2000

For:

SYSTEM AND METHOD FOR

**AUTOMATICALLY DRILLING** 

AND BACKREAMING A HORIZONTAL BORE UNDERGROUND

RECEIVED

082380-00339

3672

R. Addie

JUN 0 8 2004

**GROUP 5600** 

Mail Stop Non-Fee Amendment Commissioner For Patents P.O. Box 1450 Alexandria, VA 22313-1450

# AMENDMENT AND RESPONSE TO OFFICE ACTION MAILED DECEMBER 3, 2003

Applicant respectfully requests that the above application be amended as follows:

#### In the claims:

- 1-11. Cancelled.
- 12-20. Withdrawn.
- 21. Cancelled.
- 22. Withdrawn.
- 23. Cancelled.
- 24. Cancelled.
- 25. (Twice Amended) A horizontal drilling system comprising:
- a horizontal drilling machine having a plurality of automated functions, and

further comprising:

- a drill string, having a first end and a second end;
- a drive system operatively connectable to the first end of the drill string and adapted to advance the drill string through the earth;